

Work Order ID 142137-2

March 07, 2016 11:55:17 AM

142137

Page 1

Item ID: D412-630-033

Revision ID:

Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/14/2016 Start Qty: 4.00 *4*

Required Date: 4/15/2016 Req'd Qty: 4.00 *4*

Reference:

Accept

N900040100

Setup Start *NS1*
NS2

Cust Item ID:

Customer:

Approvals: Process Plan: SH Date: 20160307 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
IIN D412-630	Rev N

100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & create labels per PPP D412-630-033 CH0004								

CHG005 per EN16-001

DAS 21 9-89 1605-02
FEB 14 2017

110	Small Fab	0.00							
110	Small Fab								
Small Fab	Memo	0.02							

Assemble as per dwg D412-630 p.14
Coat all hardware with LPS3 rust inhibitor
A/R LPS3 batch: 123777
COAT exposed HARDWARE WITH LPS PROCYON.
A/R LPS PROCYON BATCH: 133690

Note: change NAS15H3 (discard) on;
D2803-041 + D2804-041
to D3672-15 per EN16-001

DAS 36 9-89 17/02/0

Work Order ID 142137-2

142137

Page 1

March 07, 2016 11:55:17 AM

Item ID: D412-630-033 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear
 Start Date: 3/14/2016 Start Qty: 4.00 *4* Cust Item ID:
 Required Date: 4/15/2016 Req'd Qty: 4.00 *4* Customer:
 Reference:

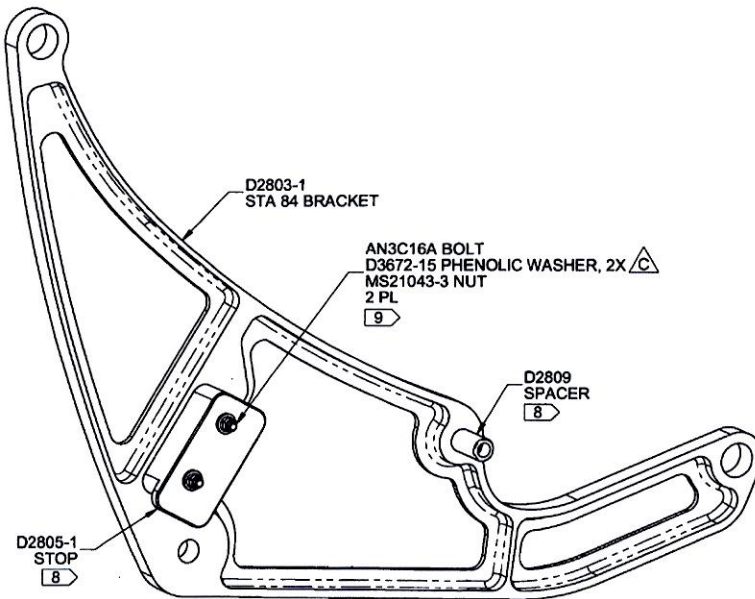
Approvals: Process Plan: SH Date: 20160307 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start *NR1*
 Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
IIN D412-630	Rev N								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & create labels per PPP D412-630-033 CH0004								
110	Small Fab	0.00							
110	Small Fab								
Small Fab	Memo	0.02							
	Assemble as per dwg D412-630 p.14								
	Coat all hardware with LPS3 rust inhibitor								
	A/R LPS3 batch: <u>123777</u>								
	COAT exposed HARDWARE WITH LPS PROCYON.								
	A/R LPS PROCYON BATCH: <u>133690</u>								

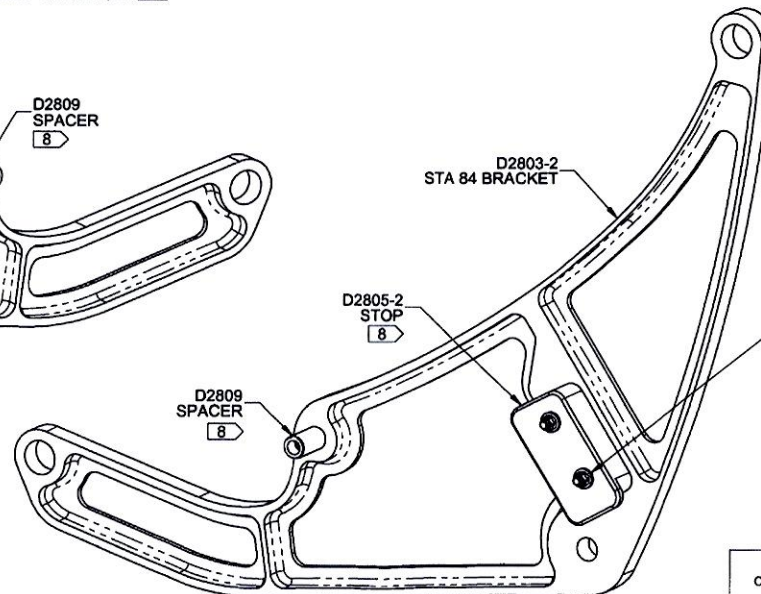
Note: change NAS1515H3(discard) on;
 D2803-041 + D2804-041
 to D3672-15 per EN16-601

DAS 21 1605-020
 DAS 28 FEB 14 2017
 DAS 36 17/02/10

ITEM	QTY -041	QTY -042	P/N	DESCRIPTION
	X		D2803-041	BRACKET ASSY
		X	D2803-042	BRACKET ASSY
1	1		D2803-1	STA 84 BRACKET
2		1	D2803-2	STA 84 BRACKET
3	1		D2805-1	STOP
4		1	D2805-2	STOP
5	1	1	D2809	SPACER
6	4	4	D3672-15	PHENOLIC WASHER
7	2	2	AN3C16A	BOLT
8	2	2	MS21043-3	NUT, SELF-LOCKING



D2803-041 BRACKET ASSY



D2803-042 BRACKET ASSY

- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: POWDER COAT "GLOSS WHITE" (4.3.5.1) OR "GREY SANDTEX" (4.3.5.6) OR "BLACK SANDTEX" (4.3.5.7) OR "GREEN SANDTEX" (4.3.5.8) PER DART QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 6.1
 - 7) WEIGHT: 1.58 lbs
 - 8) PRESS D2805-X AND D2809 INTO PLACE PRIOR TO POWDER COAT
 - 9) INSTALL BOLT WITH LPS-3 CORROSION INHIBITOR, ENSURE NO LPS-3 ON THREADS

RELEASED

2016 JUN 22 4P
ECN 16-661

C	REVISE TO CURRENT FORMAT; ADD DETAILS A AND F AND SECTION E-E; D3672-15 WAS NAS1515H3. ZONES C3-3/C6-4 AND B3-3/B6-3; 2.656 WAS 2.654 AND 0.438 WAS 0.437; REASON: CAD ERROR.	MB	16.04.11
B	ADD CUTOUTS AND -043/-044	CP	04.11.22
A	NEW ISSUE	CP	00.11.07
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	ML	DRAWING NO.	REV. C
MFG. APPR.	JLM	D2803	SHEET 1 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	STA 84 BRACKET	NTS
DATE	16.04.11	COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. USE IS LIMITED TO THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

DQA: _____ Date: _____

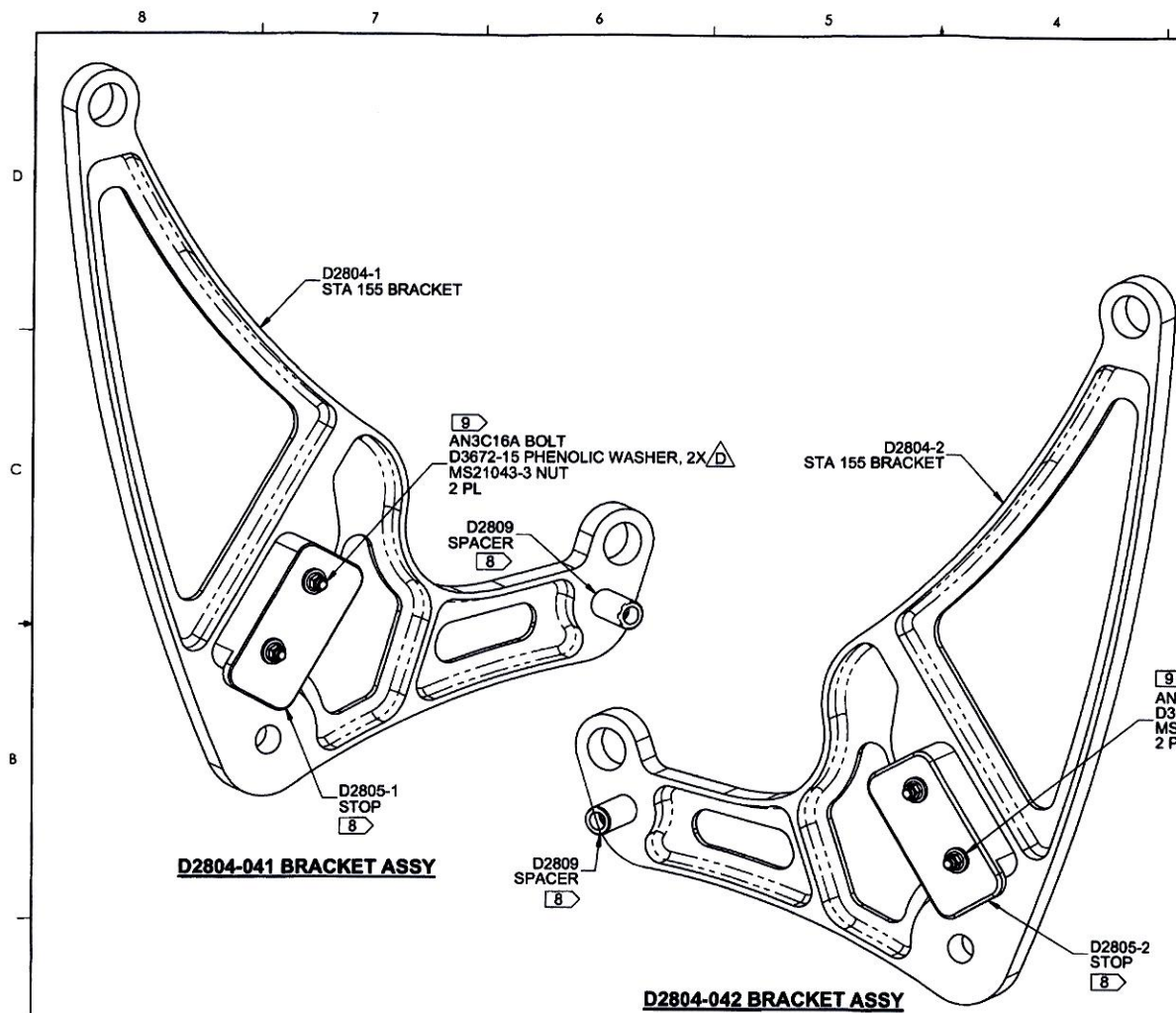


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								



ITEM	QTY -041	QTY -042	P/N	DESCRIPTION
	X		D2804-041	BRACKET ASSY
		X	D2804-042	BRACKET ASSY
1	1		D2804-1	STA 155 BRACKET
2		1	D2804-2	STA 155 BRACKET
3	1		D2805-1	STOP
4		1	D2805-2	STOP
5	1	1	D2809	SPACER
6	4	4	D3672-15	PHENOLIC WASHER
7	2	2	AN3C16A	BOLT
8	2	2	MS21043-3	NUT, SELF-LOCKING

RELEASED
2016 JUN 22
ECN 16-661

- NOTES:**
- 1) MATERIAL: N/A
 - 2) FINISH: POWDER COAT "GLOSS WHITE" (4.3.5.1) OR "GREY SANDEX" (4.3.5.6) OR "BLACK SANDEX" (4.3.5.7) OR "GREEN SANDEX" (4.3.5.8) PER DART QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 6.1
 - 7) WEIGHT: 1.37 lbs
 - 8) PRESS D2805-X AND D2809 INTO PLACE PRIOR TO POWDER COAT
 - 9) INSTALL BOLT WITH LPS-3 CORROSION INHIBITOR, ENSURE NO LPS-3 ON THREADS

D	REVISE TO CURRENT FORMAT; D3672-15 WAS NAS1515H3; MS21043-3 WAS MS21042-3; ADD CSINK (SECTIONS E-E AND J-J). REF: PAR16-499 D6-3/-4; 2.656 WAS 2.654 REASON: CAD ERROR.	MB	16.04.11
C	CHANGE GEOMETRY TO ADD CLEARANCE	CP	06.10.16
B	ADD CUTOUTS AND -043/-044	CP	04.11.22
A	NEW ISSUE	CP	00.11.07
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	ML	DRAWING NO.	REV. D
MFG. APPR.	JLM	D2804	SHEET 1 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	D9	STA 155 BRACKET	NTS
DATE	16.04.11	COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	OTHER :							
Misidentified	☐	Past Due								

ENGINEERING CHANGE NOTICE

DART AEROSPACE LTD

Date: 16.06.22	Job No.: ENG7105JUNE	ADR Yes/No: N	ADR Date: N/A	ECN #: 16- 601
Product No.: D412-630		Created By: [Signature]	Approved By: [Signature]	
Product Name: HELI-ACCESS-STEP		Checked By: [Signature]		

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)	Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
Director of Operations	N	DM		DQA / QA Coord.	Y	PS / ED	16.06.23
Production Manager / Coord.	Y	MP / MF	MF 16-6-23	QC Coordinator	Y	PD	16.06.23
Purchasing Manager / Purchasing Coord.	Y	LL / CL	16.06.23	Customer Support	Y	SW / LM	16.06.23
Production Engineering Coord.	Y	DD / JLM	16.06.23	Customer Technical Support	Y	MB / HS	16.06.23
Production Engineering Coord.	N	DL		Marketing	Y	SL / WR	16.06.23
Customer Order Processing	N	SL / BG		Dist. Management Coord.	Y	HM	16.06.23

Reason for Change:
 INSTRUCTIONS CLARIFIED FOR OPERATORS INSTALLING D412-630-031/-032/-033/-034 SIMULTANEOUSLY. NAS1515 WASHERS REPLACED BY D3672.

Documents Affected:
 RELEASE D412-630 REV. O, ICA-D412-630 REV. 6, D3562 REV. G (REF. PAR16-517), D3672 REV. D, D2803 REV. C, AND D2804 REV. D

IF APPLICABLE: NCR: _____ PAR: 16-499 CAR: _____ CIR: _____ URF: _____

PAPERWORK UPDATE ☒ PARTS MUST COMPLY ☒ PREVIOUS PARTS SATISFACTORY ☐

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	Y	MB	PROVIDE BHTC WITH IIN/ICA	16.06.22
2	Notify Eurocopter France	N			
3	Notify Augusta Westland	N			
4	Manufacturing Licensing Agreement Update	N			

#	Engineering Actions	Reqd	Resp	Notes	Complete
5	Required Documents/Drawings/Item ID's Under Review (URF)	N			
6	Update Master Document List (MDL)	Y	MB	MDL-D412-630 REV. R	16.06.22
7	Update Document Record (DR)	N			
8	Update Product Compatibility Matrix	N			
9	Notify TC / FAA of Change (eg. ICA, 8110-3)	N			
10					

#	Document Control Actions	Reqd	Resp	Notes	Complete
11	Move / Update Electronic Files / Design Journal	Y	KJ		16.06.23
12	Update Product Specification Files (Bluefiles)	Y	KJ		16.06.23
13	Update Approved/Preliminary Dwg PDF Files	Y	KJ		16.06.23
14	Update Product Development Summary (STC applications)	N			
15	Update QSI 021 (TC/FAA STC) and/or STC Approval List	N			
16	Create/Update Parts / STC Database	Y	KJ	SEE ITEM C BELOW.	16.06.23
17	Update / Verify Airworthiness Release Certificate Database	Y	KJ		16.06.23
18	Create / Update Change Record Form / Item Card Database	Y	KJ	SEE ITEM A BELOW.	16.06.23
19	Create / Update Packaging Process Plan (PPP)	Y	KJ		16.06.23
20	Red Decals required on Packaging Process Plan (PPP)?	Y	KJ		16.06.23
21	Update Controlled Supplier Documents (Qpulse) Database	N			
22	Update Grey Project Binder / Electronic Project Folder	Y	KJ		16.06.23
23	Update D-Part / M-Drawing / DSI / DEO Master Binders	Y	KJ		16.06.23
24	Update "Royalty Paid to" attribute (Parts sold under Dart USA STC's)	N			
25					

Description / Action:

A) - D412-630-011/-012 NOW AT CHG 008
 - D412-630-013/-014 NOW AT CHG 007
 - D412-630-023/-024/-033/-034 NOW AT CHG 005
 - D412-630-031/-032 NOW AT CHG 004

B) UPDATE ROUTES, BOMs AND W/Os ACCORDINGLY.

C) NEW PARTS: D3672-15/-17/-19. ENTER IN SYSTEM, CREATE ROUTES, BOMs, AND W/Os. PLACE PO WITH SUPPLIER AND STOCK PARTS.

D) REWORK D2803-1/-2/-041/-042/-043/-044 AND D2804-1/-2/-041/-042/-043/-044 IN STOCK/WIP TO D2803 REV. C AND D2804 REV. D.

ECN Verified & Complete: [Signature] Date: JUN 27 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

February 29, 2016 10:42:57 AM

Page 2

Accept

N900040100

Setup Start ***NS1***

Stop *NS2*

Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016 **Start Qty:** 4.00

4

Cust Item ID:

Required Date: 4/15/2016 **Req'd Qty:** 4.00

4

Customer:

Reference:

Run Start *NR1*

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120

QC5- Inspect part completeness to step on W/O

0.00

120

QC

Memo

0.00

Quality Control

FFR 13 2017

130

Pick Kit

0.00

130

Packaging

Memo

0.00

Packaging

FEB 13 2017

DAS
6
9-8

DAS
27
9-8

140

QC4- 100% Inspect kits for completeness

0.00

140

QC

Memo

0.00

Quality Control

3x

FEB 14 2017

February 29, 2016 10:42:57 AM

Item ID: D412-630-033

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016 **Start Qty:** 4.00 ***4***

Cust Item ID:

Required Date: 4/15/2016 **Req'd Qty:** 4.00 ***4***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150

0.00

150

Packaging

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D412-630-033

Location:

PPP Rev:

3)

DAS
27
9-89

FEB 15 2017

160

QC21- Final Inspection - Work Order Release

0.00

160

QC

Memo

0.01

Quality Control

DAS
21
9-89

FEB 15 2017

DAS
21
9-89

FEB 15 2017

Picklist Print

February 29, 2016 10:43:02 AM

Page 1

Work Order ID: 142137

142137

Parent Item: D412-630-033

D412-630-033

Parent Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-11-08 JLM
 IPP rev B ecn 1019, added d2807-041 EC verified by:DD
 IPP rev :C 11.01.06 added route seq ID DD vef:EC IPP REV:D
 13.06.07 PER CHG004 DD vef:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2012-107 *D2012-107* Clevis		Manufactured	No			110	Each	11.0000	1	4			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA004		11							
				138845		11							
D2803-041 *D2803-041* Bracket Assembly		Manufactured	No			110	Each	12.0000	1	4			DAS 8 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST472		12							
				119659		8							
				127259		4							
D2804-041 *D2804-041* Bracket Assembly		Manufactured	No			110	Each	6.0000	1	4			DAS 8 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST474		6							
				119545		2							
				126880		4							

APR 2 1 2016

Picklist Print

February 29, 2016 10:43:02 AM

Page 2

Work Order ID: 142137

142137

Parent Item: D412-630-033

D412-630-033

Parent Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

D2807-041

Manufactured No

110

Each

16.0000

2

8

D2807-041

Prop Assembly

DAS
8
9-89

Location

Loc Qty

Loc Code

FG

3

89606

3

ST010

13

130465

3

140752

10

D2813

Manufactured No

110

Each

17.0000

2

8

D2813

Washer

DAS
8
9-89

Location

Loc Qty

Loc Code

ST011

17

124271

17

D3562-041

Manufactured No

110

Each

0.0000

1

4

D3562-041

Step Weldment

150945 (34) ******

APR 21 2016

DAS
36
9-89

D3395-1

Manufactured No

110

Each

22.0000

4

16

D3395-1

Bushing

DAS
8
9-89

Location

Loc Qty

Loc Code

ST034

22

133522

1

134014

21

APR 21 2016

Picklist Print

February 29, 2016 10:43:03 AM

Page 3

Work Order ID: 142137

142137

Parent Item: D412-630-033

D412-630-033

Parent Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

AN3C21A

Purchased No

110

Each

47.0000

2

8

AN3C21A

Bolt

**

DAS
8
3-89

Location

Loc Qty

Loc Code

OVER002

25

M133686

25

ST348

22

M132617

2

M133640

20

AN8C16

Purchased No

110

Each

71.0000

2

8

AN8C16

Bolt

**

DAS
8
3-89

Location

Loc Qty

Loc Code

over005

56

131651

7

M132522

7

M132674

7

M133091

7

M133336

7

M133920

7

M133921

7

M134131

7

ST332

15

M130460

14

M131367

1

APR 21 2016

Picklist Print

February 29, 2016 10:43:03 AM

Page 4

Work Order ID: 142137

142137

Parent Item: D412-630-033

D412-630-033

Parent Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

AN310C8

Purchased

No

110

Each

36.0000

2

8

AN310C8

Nut

DAS
36
9-89

Location

Loc Qty

Loc Code

CCK006

20

m132677

20

ST331

16

m132640

16

MS24665-302

Purchased

No

110

Each

44.0000

2

8

MS24665-302

Cotter Pin

DAS
36
9-89

Location

Loc Qty

Loc Code

GA

17

120521

17

ST288

27

m127305

27

NAS1515H3

Purchased

No

110

Each

346.0000

6

24

NAS1515H3

Washer

DAS
36
9-89

Location

Loc Qty

Loc Code

FG

10

123301

10

GA

38

m129521

38

ST266

298

m128635

7

m131097

291

D367215
per EUNIB-601
h

151784
24 + 21
DAS
36
9-89

DAS
36
9-89

DAS
36
9-89

135672 (3x)

APR 21 2016

February 29, 2016 10:43:03 AM

Shop Packet Print

Page 4

Picklist Print

February 29, 2016 10:43:03 AM

Page 5

Work Order ID: 142137

142137

Parent Item: D412-630-033

D412-630-033

Parent Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

NAS1515H5L

Purchased

No

110

Each

210.0000

4

16

NAS1515H5L

Washer

DAS
8
9-89

D3672-7
per EUN6601
152458
DAS
9-89

Location

Loc Qty

Loc Code

FG

40

103691

40

ST265

167

M133316

167

ST266

3

M130466

3

16

NAS1515H8

Purchased

No

110

Each

25.0000

4

16

NAS1515H8

Washer

DAS
8
9-89

D367219
per EUN6601
148075
DAS
9-89

Location

Loc Qty

Loc Code

ST265

25

m131001

25

16

APR 21 2016

M524693-C285

M135704

3X

17/02/10

DAS
36
9-89

February 29, 2016 10:43:03 AM

Shop Packet Print

Page 5

Picklist Print

February 29, 2016 10:43:03 AM

Page 6

Work Order ID: 142137

142137

Parent Item: D412-630-033

D412-630-033

Parent Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

MS21043-3

Purchased

No

110

Each

989.0000

4

16

DAS
8
9-89

MS21043-3

Nut

Location

Loc Qty

Loc Code

FG

80

103691

80

FP001

11

m130673

11

GA

39

m130673

15

m131677

24

OVER007

400

m133990

400

ST302

328

m133577

328

ST304

106

m131340

106

ST308

25

m132551

25

MS24693-C280

Purchased

No

110

Each

44.0000

2

8

DAS
8
9-89

MS24693-C280

SCREW

Location

Loc Qty

Loc Code

ST287

44

m131624

44

total 21

DAS
6
9-89

FEB 13 2017

~~D3672-17 x 7 148076 x 14 150826 x 5~~

8

APR 21 2016

~~D3672-15 x 7 50339 total 21~~

DAS
6
9-89

FEB 13 2017

February 29, 2016 10:43:03 AM

Shop Packet Print

Page 6

Picklist Print

February 29, 2016 10:43:03 AM

Work Order ID: 142137

142137

Parent Item: D412-630-033

D412-630-033

Parent Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

D2806-1

Manufactured No

130 Each

17.0000

2 8

D2806-1

Bushing

**

142466x/

DAS

DAS 27 89

DAS 28 9-89

Location

Loc Qty

Loc Code

ST011

7

133437

7

ST012a

10

133945 5x

10

D2806-3

Manufactured No

130 Each

24.0000

2 8

D2806-3

Bushing

**

DAS

DAS 27 89

DAS 28 9-89

Location

Loc Qty

Loc Code

ST010

24

134007

8

136702

16

D2810-5

Manufactured No

130 Each

10.0000

1 4

D2810-5

Strut

**

DAS

DAS 27 89

DAS 28 9-89

Location

Loc Qty

Loc Code

ST377

10

124237

5

134899

5

D3396-1

Manufactured No

130 Each

9.0000

2 8

D3396-1

Spacer

**

DAS

DAS 27 89

DAS 28 9-89

Location

Loc Qty

Loc Code

ST034

9

107894

9

APR 30 2016

February 29, 2016 10:43:03 AM

ork Order ID: 142137

arent Item: D412-630-033

arent Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

142137

D412-630-033

Start Date: 3/7/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

N4C6A

AN4C6A

olt

Purchased No 130 Each 309.0000 1 4

**

DAS
8
9-89

DAS
27
9-89

Location Loc Qty Loc Code

FG 14
103344 4
121657 10
OVER002 200
m133990 200
ST345 95
m131410 1
m133515 94

AN4C10A

AN4C10A

BOLT

Purchased No 130 Each 13.0000 1 4

**

DAS
8
9-89

DAS
27
9-89

Location Loc Qty Loc Code

ST345 13
M129521 1
M131153 12

AN5C15A

AN5C15A

Bolt

Purchased No 130 Each 39.0000 2 8

**

DAS
8
9-89

DAS
27
9-89

Location Loc Qty Loc Code

286a 39
M130466 39

AN44C7A

AN44C7A

Eyebolt

Purchased No 130 Each 7.0000 1 4

**

DAS
8
9-89

APR 30 2016
DAS
27
9-89

Location Loc Qty Loc Code

ST339 7
m132677 7

Picklist Print

February 29, 2016 10:43:03 AM

Page 9

Work Order ID: 142137

142137

Parent Item: D412-630-033

D412-630-033

Parent Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

AN4C15A

Purchased

No

130

Each

94.0000

2 8

AN4C15A

Bolt

**

DAS 27 9-89

Location

Loc Qty

Loc Code

FG

10

120360

10

OVER002

50

M132763

20

M133485

30

ST312A

16

M131377

16

ST343

18

M132823

18

NAS1515H4

Purchased

No

130

Each

52.0000

7 28

NAS1515H4

Washer

DAS 28 9-89

**

DAS 27 9-89

Location

Loc Qty

Loc Code

ST266

52

m129499 47

52

NAS1515H5

Purchased

No

130

Each

118.0000

7 28

NAS1515H5

Washer

DAS 28 9-89

**

DAS 27 9-89

Location

Loc Qty

Loc Code

FG

40

103691

40

ST266

78

m130783

78

February 29, 2016 10:43:03 AM

Shop Packet Print

Page 9

Picklist Print

Page 10

February 29, 2016 10:43:03 AM

Work Order ID: 142137

142137

Parent Item: D412-630-033

D412-630-033

Parent Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/7/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

MS21043-4

Purchased

No

130

Each

1,021.000

4

16

MS21043-4

Nut

**

DAS

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

40

104603

40

GA

206

m132803

206

ST302

300

m134249

300

ST32

475

m133769

475

MS21043-5

Purchased

No

130

Each

172.0000

3

12

MS21043-5

Nut

**

DAS

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

20

101418

20

GA

76

116548

76

ST302

76

m132382

76

DAS
28
9-89

3.3.2016

Work Order ID 142137

March 07, 2016 11:55:17 AM

142137

Page 1

Item ID: D412-630-033

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Folding Heli-Access-Step™ LH - Low, High & Float Gear

Start Date: 3/14/2016 Start Qty: 4.00 ***4***

Cust Item ID:

Required Date: 4/15/2016 Req'd Qty: 4.00 ***4***

Customer:

Reference:

Approvals:

Process Plan: SHDate: 3/16/2016 Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
IIN D412-630	Rev N								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & create labels per PPP D412-630-033 CHG004								
110	Small Fab	0.00							
110	Small Fab								
Small Fab	Memo	0.02							
Small Fab	Assemble as per dwg D412-630 p.14								
	Coat all hardware with LPS3 rust inhibitor								
	A/R LPS3 batch: _____								
	COAT exposed HARDWARE WITH LPS PROCYON .								
	A/R LPS PROCYON BATCH: _____								

MCS MAY 02 2016

Qty -033	Qty -034	Qty -243	Qty -244	Part Number	Description
X				D412-630-033	HELI-ACCESS-STEP™ LH (FOLDING)
	X			D412-630-034	HELI-ACCESS-STEP™ RH (FOLDING)
1		X		D412-630-243	STEP ASSEMBLY LH
	1		X	D412-630-244	STEP ASSEMBLY RH
		1	1	D2012-107	CLEVIS
		1		D2803-041	STA 84 BRACKET ASSEMBLY LH
			1	D2803-042	STA 84 BRACKET ASSEMBLY RH
		1		D2804-041	STA 155 BRACKET ASSEMBLY LH
			1	D2804-042	STA 155 BRACKET ASSEMBLY RH
2	2			D2806-1	BUSHING
2	2			D2806-3	BUSHING
		2	2	D2807-041	GAS SPRING ASSEMBLY (WAS D2807)
1	1			D2810-5	STRUT
		2	2	D2813	WASHER
		1		D3562-041	STEP WELDMENT LH
			1	D3562-042	STEP WELDMENT RH
		4	4	D3395-1	BUSHING
2	2			D3396-1	SPACER
7	7			D3672-5	WASHER (OR NAS1515H5)
		4	4	D3672-7	WASHER (OR NAS1515H5L)
		5	5	D3672-15	WASHER (OR NAS1515H3)
7	7			D3672-17	WASHER (OR NAS1515H4)
		4	4	D3672-19	WASHER (OR NAS1515H8)
		1	1	AN3C21A	BOLT
1	1			AN4C6A	BOLT
1	1			AN4C10A	BOLT
2	2			AN4C15A	BOLT
1	1			AN44-C7A	EYEBOLT
2	2			AN5C15A	BOLT
		2	2	AN8C16	BOLT
		2	2	AN310C8	NUT
		2	2	MS24665-302	COTTER PIN (OR AN380C3-4)
		4	4	MS21043-3	NUT
4	4			MS21043-4	NUT
3	3			MS21043-5	NUT
		2	2	MS24693-C280	SCREW (OR MS24694-C65)
		1	1	MS24693-C285	SCREW (OR MS24694-C76)